

REMARKS

This is a full and timely response to the non-final Official Action mailed February 9, 2005. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Various claims are amended herein. Claims 26-35 are cancelled without prejudice or disclaimer. No new claims are added. Consequently, claims 1-25 and 36-39 are currently pending for the Examiner's consideration.

Claim Objections:

The outstanding Office Action objected to claims 36 and 39 on the basis of a number of alleged informalities. To expedite prosecution, Applicant has herein made each of the amendments suggested in the Office Action. These amendments do not, and are not intended to, narrow or alter the scope of any claim. Accordingly, the objection to claims 36 and 39 should now be reconsidered and withdrawn. Notice to this effect is respectfully requested.

Prior Art:

With regard to the prior art, claims 1-39 were rejected as unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of U.S. Patent No. 5,754,939 to Lopresti et al. ("Lopresti") and U.S. Patent No. 5,956,025 to Goulden et al. ("Goulden"). For at least the following reasons, this rejection is respectfully traversed.

As explained in Applicant's specification, the claims are addressed to a versatile user interface system in which the hard or soft keys of a remote control unit (144, Fig. 2) are programmed to invoke specific functions in the application or applications executing on a

corresponding consumer device, such as a set-top box, etc. Current systems, although not prior art, operate by programming or teaching the remote control unit to send a different signal based on the function to be invoked by a particular key sequence.

In contrast, in Applicant's system, the remote control always sends the same signal depending on what key or sequence of keys is actuated. An application or VRCM task running on the consumer device then remaps or translates that signal into a command for a specified application using an API for that application.

As stated in Applicant's specification "the re-mapping appears to be different to the user, but the soft key code values remain the same although their function is based on the new definition that has been set by the application as instructed by the user. When the user then selects one of the re-mapped soft keys, a Receive VRCM driver routine forwards or conveys the key value to the application via the corresponding API. " (Applicant's specification, paragraph 0037).

Consequently, claim 1 recites:

A versatile user interface system, comprising:
 a consumer device including a central processing unit having a memory for processing communication data;
 at least one application resident in the consumer device;
 a user interface device having at least one key for interfacing with the consumer device; and
 a plurality of software and application programming interface (API) routines resident in the memory of the consumer device,
 wherein at least one of the plurality of software and API routines forwards a key code to the at least one application, and
wherein *the at least one application remaps* a corresponding key code function of the at least one key or a sequence of keys when the at least one key on the user interface device is selected by a user.
 (emphasis added).

Thus, the claims make clear that the remapping is done by an application (or VRCM task) "resident on the consumer device" controlled by the user interface or remote control.

The remapping is not done by programming the user interface or remote control to send different signals based on the function custom-assigned to a key or key sequence.

In contrast, neither Lopresti nor Goulden (nor the combination thereof) teach or suggest an application or VRCM task on a consumer device that remaps a corresponding key code function received when a user selects a key or key sequence on a user interface device.

Claim 10 recites similar subject matter in the form of a method claim:

A method for programming at least one application resident in a consumer device, comprising the steps of:

providing at least one application resident in a consumer device;
providing a plurality of software and application programming interface (API) routines resident in the consumer device; and
sending control signals to the consumer device using a user interface device,

whereby at least one of the plurality of software and API routines forwards a key code to the at least one application, and

whereby the at least one application remaps a corresponding key code function of the at least one key or a sequence of keys when the at least one key on the user interface device is selected by a user.

(emphasis added).

Claim 18 similarly recites:

A versatile user interface system, comprising:
a set-top terminal including a central processing unit for and memory for processing and storing communication data;
at least one application resident in the memory of the set-top terminal;
a versatile remote control unit having at least one key for sending control signals to the set-top terminal;
a Versatile Remote Control Manager (VRCM) resident in the memory of the set-top terminal,

wherein the VRCM forwards a key code to the at least one application, and
wherein the at least one application remaps a corresponding key code function for the at least one key or a sequence of keys when the at least one key is selected on the versatile remote control unit by a user.

(emphasis added).

Claim 24 similarly recites:

A cable television system, comprising:
 a set-top terminal including a central processing unit and memory for processing and storing communication data, the set-top terminal connected to a CATV communication system;
 a display device operatively coupled to the set-top terminal;
 at least one application resident memory of the set-top terminal;
 a versatile remote control unit having at least one key for sending control signals to the set-top terminal to invoke the at least one application of the set-top terminal; and
 a plurality of software and application programming interface (API) routines resident in memory of the set-top terminal,
 wherein at least one of the plurality of software and API routines interact with the at least one application by forwarding a key code for the at least one application, and
wherein the at least one application remaps a corresponding key code function for the at least one key or a sequence of keys on the versatile remote control unit when the at least one key on the versatile remote control unit is selected by a user.
 (emphasis added).

As explained above, the prior art fails to teach or suggest the claimed application or VRCM on a controlled device that remaps a signal from a user interface or remote control unit for various other applications running on the controlled device without reprogramming the operation of the user interface or remote control unit. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claims 1 – 25 based on the combination of Lopresti and Goulden should be reconsidered and withdrawn.

Claim 36 recites:

A video system with a user interface including a remote control unit, said system comprising:
 a device controlled using said remote control unit;
 a display associated with said device; and
 said remote control unit comprising a plurality of keys;

wherein a function signaled by one or more of said plurality of keys on said remote control device can be selected and programmed by a user by selecting that function from a menu displayed on said display device.
(emphasis added).

In contrast, neither Lopresti nor Goulden teach or suggest that a user can select the function that is signaled by the keys on a remote control device. Lopresti teaches that a PDA can be programmed to act as a remote control for audio/visual equipment. (Col. 2, lines 20-38). This, however, is not a teaching of a remote control unit with an existing plurality of keys where the user then selects what function will be signaled or called by actuation of those keys as claimed.


Goulden teaches a GUI for a remote control unit that displays icons and soft buttons for controlling a variety of devices. However, the user cannot select what function will be signaled or called when a particular icon or soft button is selected. Rather, the user can merely "select the icons that should be present in the main menu and those that should not." (Col. 1, lines 30-36).

Thus, none of the cited prior art references teaches or suggests allowing a user to select the function signaled by one or more of a plurality of existing keys on a remote control unit as recited in claim 36. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claims 26-39 based on the combination of Lopresti and Goulden should be reconsidered and withdrawn.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper, which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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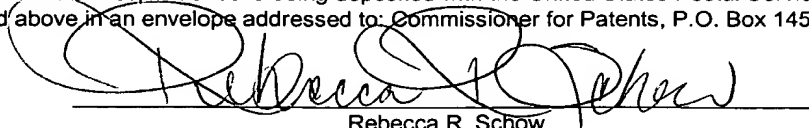
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CERTIFICATE OF MAILING

DATE OF DEPOSIT: May 9, 2005

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date indicated above in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


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